

WHAT IS CLAIMED IS:

1. A fastening strip for fastening a filter cloth to the filter element of a solid-liquid separator, wherein

the solid-liquid separator comprises a body portion rotatable around its horizontal axis, two or more adjacent filter elements arranged on the periphery of said body portion, each filter element comprising at least one filter surface provided with holes, against which surface the filter cloth is arranged, and at least one fastening groove arranged in connection with the filter element, in which groove the fastening strip is to be arranged for fastening the filter cloth; and

the fastening strip is an elongated piece having a substantially T-formed cross section and comprising

(a) a fastening portion made from flexible material and so dimensioned that it is deformed when inserted into said fastening groove and generates a fastening force and

(b) a support portion that is transverse to the fastening portion and remains outside the fastening groove and is dimensioned so as to extend to a predetermined distance from the edge of the fastening groove.

2. The fastening strip of claim 1, wherein at least the surface on the side of the sector element of the support portion is curved.

3. The fastening strip of claim 1, wherein the support portion narrows towards the transverse edges of the fastening strip.

4. The fastening strip of claim 1, wherein the support portion comprises a flat portion on the surface opposite to the sector element.

5. The fastening strip of claim 1, wherein the fastening portion comprises two flexible projecting portions, between which is a gap that allows said projecting portions to move towards one another, the projecting portions acting as a spring.

6. The fastening strip of claim 1, wherein the fastening portion is made from flexible compressible material.

7. A filter unit for a disc filter, wherein the disc filter comprises a body portion that is rotatable around its horizontal axis and on whose periphery are arranged two or more filter units that form a disciform structure;

the filter unit comprises a sector element, a filter cloth and a fastening strip;

the sector element comprises a neck portion for fastening the sector element to the body portion of the disc filter, a flat substantially triangular hollow blade portion comprising an outer edge at the edge opposite to the neck portion, lateral faces transverse to the direction of rotation and flank surfaces in the direction of rotation;

the flank surfaces of the sector element are provided with holes and act as filter surfaces; the filter cloth is arranged against said filter surfaces,

the sector element comprises at least one fastening groove, wherein a fastening strip is arranged for fastening the filter cloth on the sector element; and

the fastening strip is an elongated piece having a substantially T-formed cross section and comprising

(a) a fastening portion made from flexible material and so dimensioned that it is deformed when inserted into said fastening groove and generates a fastening force and

(b) a support portion that is transverse to the fastening portion and remains outside the fastening groove and extends to a predetermined distance from the edge of the fastening groove.

8. The filter unit of claim 7, wherein

the fastening groove is arranged at the outer edge of the blade portion,

a tubular filter bag that is made from filter cloth and open at both its ends, and comprises a wider end and a narrower end, is arranged around the sector element,

the narrower end of the filter bag is fastened by means of fastening elements around the neck portion of the sector element, and

the edges of the wider end of the filter bag are fastened to the fastening groove of the sector element by means of the fastening strip.

9. The filter unit of claim 7, wherein the fastening groove is arranged at least on one lateral face of the blade portion of the sector element,

a substantially triangular filter bag made from filter cloth and having a closed wider end and an open narrower end is arranged around the sector element,

the side of the filter bag comprises an opening from which the filter bag is arranged onto the sector element,

the edges of said opening are fastened by means of the fastening strip to the fastening groove at the lateral face of the blade portion, and

the narrower end of the filter bag is fastened by means of the fastening elements around the neck portion of the sector element.

10. A drum filter comprising

a body portion, which is an elongated tubular piece rotatable around its horizontal axis,

a plurality of filter elements arranged adjacent each other on the periphery of the body portion, the filter elements comprising hollow spaces substantially in the shape of a toroidal sector in the longitudinal direction of the body portion, the periphery of the filter elements being provided with holes, and the outer peripheries of adjacent filter elements together forming the filter surface of the drum filter,

one or more fastening grooves provided on the periphery of the drum filter, and

a filter cloth fastened by means of one or more fastening strips to said one or more fastening grooves, the filter cloth being arranged against the filter surface of the drum filter, and wherein

the fastening strip is an elongated piece having a substantially T-formed cross section and comprising

(a) a fastening portion made from flexible material and so dimensioned that it is deformed when inserted into said fastening groove and generates a fastening force, and

(b) a support portion that is transverse to the fastening portion and remains outside the fastening groove and extends to a predetermined distance from the edge of the fastening groove.

11. The drum filter of claim 10, wherein the fastening groove is longitudinal with respect to the body portion.

12. The drum filter of claim 11, wherein the filter cloth is a preformed tubular piece drawn onto the drum filter and tightened against the filter surface of the periphery of the drum filter by means of one or more fastening strips.

13. The drum filter of claim 11, wherein the filter cloth comprises at least one sheet-like piece arranged around the periphery of the drum filter, the longitudinal edges of the filter cloth being fastened by means of the fastening strip to the fastening groove on the periphery of the drum filter, the filter cloth forming an endless loop around the drum filter.

0533546 "041801
TOP 10 94535350